Part III:

Capacity Development Program for Existing Systems

NEW MEXICO

CAPACITY DEVELOPMENT STRATEGY

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III: CAPACITY DEVELOPMENT STRATEGY FOR EXISTING PUBLIC WATER SYSTEMS IN NEW MEXICO

Section 1:
Introduction

In New Mexico, many water systems, Technical Assistance providers (TAP), and government agencies have long-established programs that are essential elements of a total capacity development program for public water systems. These successful program elements provide the foundation for a statewide capacity strategy. In recent years, additional capacity development program elements have been experimented with, developed and implemented in New Mexico. Successful experiments should become a part of the state strategy.

Capacity development is the process by which water systems acquire and maintain the technical, managerial and financial capabilities necessary to consistently provide safe drinking water. The program was initiated in 1998 in New Mexico. This is the final element of the "state strategy" for water system capacity development prepared for implementation in New Mexico.

State strategies for capacity development are meant to be "living" documents, meaning that they are not just to be developed and put on a shelf. This initial strategy should be thought of as a starting point only. The plan outlined in this strategy document should be implemented, measured, reviewed and revised as the state moves forward. Adjustments can be made for shifting priorities or to accentuate successful elements of the capacity development program. Two years after the enactment of the strategy and every three years after that, the state must by law report on the progress of the strategy. This reporting process will help ensure that the state is continually evaluating and revising its strategy.

The programs and strategy outlined in this document are the result of extensive stakeholder input (see "E: Stakeholder Involvement" below for details). Water systems, technical assistance providers, environmental advocacy groups and federal and state agencies met and discussed problems (see "B: Factors that Encourage or Impair Capacity"). They also proposed solutions (see "C: Use of Authorities and Resources"). The NM Environment Department's Drinking Water Bureau (DWB) then compiled and prepared this report. As the designated "primacy" agency in New Mexico for implementing the Safe Drinking Water Act (SDWA), the DWB is responsible for coordinating this strategy's implementation and periodic revision.

The SDWA's requirement that states develop this technical, managerial and financial capacity development strategy for existing public water systems is an unusually broad federal mandate. Funding is provided for implementation, however. And even the US Environmental Protection Agency recognized in its program Guidance that flexibility and innovation are central to success. The Guidance states: "The challenge is in designing a comprehensive, coordinated set of actions that best meets each State's institutional arrangements and capacity development needs." This strategy is a good first step toward doing so in New Mexico.

The funding provided is specified in the federal statute as "set-asides" from the drinking water State Revolving Loan Fund (SRF), a multi-million dollar construction fund which is to be capitalized over several years. Aside from four per cent to be used for administration of the loan program, the set-asides are to be used to insure that public water systems comply with the SDWA, thereby consistently providing safe drinking water. All programs implemented as part of this strategy are eligible set-aside expenditures pursuant to the Drinking Water State Revolving Funds regulations (40 CFR Parts 9 and 35, Federal Register/Vol. 65, No. 152/ Monday, August 7, 2000.)

Development of an effective SRF construction loan program is an essential element toward meeting the goal of providing safe drinking water. The NM Finance Authority administers the SRF to provide local authorities with low cost financial assistance for construction projects. The NMED and the Finance Authority coordinate in implementing the various programs of the federal SDWA, including this state strategy, under provisions of a detailed Memorandum of Understanding.

This strategy assumes throughout that the new SDWA funding will not supplant existing federal and state funding, but rather augment it. Existing technical assistance funding and construction project funding need to continue for the strategy to succeed. Several of the initiatives proposed are intended to encourage coordination between the USDA Rural Utilities Service, HUD Community Development Block Grant and New Mexico Rural Infrastructure programs' funding of water systems with the SRF so that limited available resources are maximized.

Once approved by EPA, the broad objectives of this strategy will be further delineated in a Request for Proposal(s) and in annual work plans required by EPA when the NMED submits the SRF grant request. Funding levels for each program element will be included in the RFP and the workplans.

Future Trends

The most significant trends affecting New Mexico's drinking water protection efforts result from the impacts of new federal standards and regulations. Proposed regulations for radon and arsenic, and other new regulations, will be difficult to implement and possibly impose large capital costs on local communities. The 1996 Amendments to the federal SDWA have had and will continue to have a significant impact on drinking water protection in New Mexico for the next fifteen

years. The State Revolving Loan Fund, Capacity Development Program, Enhanced Surface Water Treatment Rules, Ground Water Rule, and new Maximum Contaminant Levels for Arsenic and Radon will all have far reaching impact for many years past their initial implementation dates. The SRF will be crucial in providing funding to meet these regulations, although not all eligible, publicly owned systems in New Mexico can afford loans.

Attachments III 1-4 are maps of the state detailing by county the concentrations of uranium, radon, sulfates and arsenic compared to EPA's proposed regulatory levels. Also included are estimates of cost impacts on New Mexico's water systems.

Due to requirements of the new rules and most funding sources, there will be a major increase in the number of hours required to manage and operate a public water system. This increase will be seen most significantly in the need for more detailed and accurate record keeping and in the hours needed to operate a water system in compliance with the SDWA.

In order for water systems to maintain compliance with ever-tightening requirements of the new rules, many will need to upgrade existing or add new water treatment technology. Additionally, New Mexico has many small, volunteer-operated systems that were constructed 30-50 years ago pursuant to the state Sanitary Projects Act. Most water systems require a major overhaul of failing infrastructure components and distribution networks that have outlived their useful life.

New proposed standards for radon in drinking water may put half of New Mexico's public water systems out of compliance with the Safe Drinking Water Act. If the state develops a multi-media program to control radon, the standard will be relaxed and many fewer communities will face compliance problems. This community-based program would have the additional benefit of reducing the risk to New Mexicans of radon in indoor air, but would require a significant expansion of NMED effort.

The proposed arsenic standard could also put many systems out of compliance due to naturally occurring levels of arsenic in New Mexico. The technical assistance and enforcement workload for the NMED Drinking Water Bureau will be increased. The greater effect of EPA's new arsenic regulation will be the probable major expenditure of capital improvement funds by water systems to remove the arsenic. These expenditures will reduce the amounts available for other needed drinking water projects.

Most of the technology needed for water systems to remain in compliance with new requirements, most significantly the new arsenic standard, are highly advanced and will require a significant increase in the level of training and expertise of the public water system operators in New Mexico. Additionally, many of these technologies have significant concerns associated with them, such as excessive water loss and generation of hazardous and/or radioactive waste streams.

The following description, with detailed attachments, demonstrates how the New Mexico Environment Department's **Capacity Development Strategy for Existing Systems** meets the requirements of the Federal Safe Drinking Water Act (SDWA).

Section 2:
The Five Elements

Section 1420(c) of the SDWA requires the State of New Mexico to develop a Capacity Development Strategy for existing systems. If the state does not receive approval of the Capacity Development Strategy from EPA by September 30, 2000, the state could face a withholding of a portion of the DWSRF Capitalization Grant. In developing and implementing this strategy, the State of New Mexico must "*consider, solicit public comment on, and include as appropriate*" the following five elements [§1420(c)(2)(A-E)]:

A. Methods or criteria to prioritize systems.
B. Factors that encourage or impair capacity development.
C. How the State will use the authority and resources of the SDWA.
D. How the State will establish a baseline and measure improvements.
E. Procedures to identify interested parties.

A: Methods to Identify and Prioritize.

The Safe Drinking Water Act, §1420(c)(2) states:

> ***"In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate:***
>
> > ***(A) The methods or criteria that the State will use to identify and prioritize the public water systems most in need of improving technical, managerial, and financial capacity."***

In New Mexico, very small systems account for the bulk of the caseload of the state regulators and public health professionals working to insure the provision of safe drinking water. This is due in large part to the fact that there are so many very small systems. Within this group of water systems, however, there is a sub-group which accounts for nearly all of the persistent violations of bacteriological standards, reflecting unsanitary conditions and genuine public health risks. Since violations of the bacteriological (TCR) rule account for over 95% of all violations annually in New Mexico, such systems are an obvious priority for capacity development.

Another sub-group of water systems in New Mexico requires priority attention even though many may never have violated Safe Drinking Water Act standards and few have demonstrated persistent violations. These are the publicly owned, volunteer run, most often rural systems established under state law since the early 1950's. Commonly called Mutual Domestic Water Consumers Associations (MDWCA), a high percentage of these 180 systems are between thirty and fifty years old. Given their lack of resources, their age, current lack of capacity, and growth patterns around the state, these systems will require, in the short term, major capacity development assistance in order to become self sustainable.

Over sixty per cent of municipalities in New Mexico have a population of less than 3,300. Thirty incorporated towns and villages have a population of less than 500. These small, incorporated entities likewise possess few resources to complete long term utility planning and preventative maintenance and should be a focus of initial capacity development efforts.

In recent times the rapid growth, especially near the Mexican border, of unserved areas has been a significant problem. Dedicated federal funding has been provided and major projects constructed. Such rapid growth continues to occur in New Mexico, sometimes in areas where the dedicated federal funding cannot by regulation be used. Predicting the extent of this problem is very difficult and needs to be investigated. It does not appear that current funding and current county land use controls are adequate to prevent these problems.

A pie chart detailing New Mexico's public water systems by ownership type is included as Attachment A 1.

Existing programs in the Environment Department, Board of Finance and NM Finance Authority adequately respond to emergency situations. These programs will continue. No major, new capacity development programs or funding will focus on emergencies, although the additional TA provider and government staff hired with capacity development set aside funding will significantly augment emergency assistance capabilities.

Because of personnel and money constraints, not every system in the state can receive immediate assistance. Therefore it is necessary to be able to prioritize systems for assistance.

The above facts establish small, publicly owned systems and municipalities of less than 3,300 population as the clear, highest priorities for the first four years of New Mexico's expanded capacity development program**.** Providing technical, managerial and financial capacity assistance to these systems prior to their decline into persistent violations and "emergency" status is the goal. There was no disagreement with these basic priorities at any of the Stakeholders' public meetings. When this strategy is revised it is recommended that the needs of systems with more that 3,300 population be carefully reviewed.

Identification Criteria

To establish priorities within the above types of systems and between other public water systems, the following criteria were suggested consistently by stakeholders:

- Systems experiencing emergencies-
- Systems with violations that request help.
- Systems with violations that do not request help.
- Systems that request help, but are not in violation.
- In # 2 -4, the age and condition of infrastructure/system management must also be considered.
- Provide incentives for systems with good management. (Utilize positive/negative points, i.e.systems with negative points get strings attached, systems with positive points less strings.)
- All other systems.

Priorities

To implement the above criteria the DWB and TA providers will utilize the following sources to establish capacity development priorities:

1. SDWA violation data, compliance and enforcement actions.
2. Managerial and financial assessment information from the State Revolving Loan Fund priority list and NMED sanitary surveys.
3. Technical data on age/condition of system from sanitary surveys.
4. State Revolving Loan Fund applications.
5. Requests for assistance from systems.

The primacy agency in the state (NMED) will continue to evaluate and set general priorities such as the above. A primary function of the NMED will be to work to coordinate and integrate stakeholder interactions, especially among governmental agencies. The NMED will also focus on maximizing the use of available resources, avoiding duplication of effort by agencies and TA providers, and streamline paperwork requirements. This partnership among stakeholders will form the basis for implementing capacity programs. In the field, all stakeholders will be expected to utilize the above sources and to help identify and prioritize specific public water systems for capacity assistance and to provide assistance to the highest priority systems.

Because of the sometimes contradictory needs of various water systems and the complex nature of capacity development, no numerical ranking criteria can accommodate all situations. In fact, stakeholders consistently agreed that the program should simultaneously help the following widely varying categories of public water systems:

- Systems with major technical, managerial or financial deficiencies (troubled systems).
- Systems which just need a little help to obtain funding to upgrade aging infrastructure.
- Systems which, without capacity assistance, will become troubled systems within 5 years.
- Systems with immediate emergency needs.

Therefore, the expanded capacity development program in New Mexico will respond to these differing needs. Systems known to be high priorities in each category will receive appropriate assistance first. Some programs, like board training and operator training, will be made available to all systems.

In an emergency situation technical assistance should and will be provided to solve the immediate problems whatever the financial and management capabilities of the system. Then the system will be evaluated for any additional technical, managerial or financial assistance needed to prevent recurrences of the problem.

Systems that are judged to have totally adequate technical, managerial and financial capacity currently may have distribution or storage facilities beyond their useful life. Many of these systems may need some capacity assistance merely to negotiate the complex federal loan/grant application process. In the first years of the expanded capacity development program in New Mexico, high priority will be given to such systems, especially to help in the implementation of the State Revolving Loan Fund (SRF).

Troubled systems experiencing persistent violations must always be a high priority for capacity assistance, but some are not willing to take the actions necessary to develop long-term capacity. These few must be referred for compliance and enforcement action. At a later time they may re-enter the capacity development program.

B: Factors that Encourage or Impair Capacity.

> ***"In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate:***
>
> > ***(B) A description of the institutional, regulatory, financial, tax, or legal factors at the Federal, State, or local level that encourage or impair capacity development."***

Factors that Encourage Capacity Development

Stakeholders and staff identified the following factors that **encourage** capacity development in New Mexico:

1. **More technical assistance (TA) providers, expanded assistance programs to small water systems, and improved provider networks.**
   Additional federal and state funding, primarily up to now from the USDA Rural Utilities Service, has allowed for more frequent and intensive interaction between TA providers and small public water systems. In recent years this assistance has incorporated resolution of legal, financial and management problems and detailed assistance in dealing with complicated funding procedures. Available technical assistance has also expanded, and now includes programs like source water protection.

2. **Public education efforts on new regulations.**
   Through newsletters, training conferences and ongoing operator training courses, information on new EPA regulations is reaching water systems from several angles. Because of the significant impact of several new proposed regulations on a large number of New Mexico systems this effort has been increased but needs to be expanded.

3. **Increased focus of all stakeholders on partnerships and regionalization.**
   Internal and external pressures are gradually encouraging and sometimes compelling many water systems to explore the efficiencies that can be gained from consolidation or partnering with other systems. Internal pressures include increasing population densities and demand for services, potential individual well contamination, and increasing costs. External pressures include more complex regulations and more detailed oversight by environmental, water rights, and financial agencies.

4. **The overall quality of water in New Mexico is good.**
   In New Mexico about 95% of the public water systems rely on groundwater as their source. Groundwater quality in New Mexico is generally quite high, often requiring no treatment. And in many areas additional groundwater sources are reasonably accessible. New, proposed regulation of arsenic and radon, however, may change this situation.

5. **Improvements to the state's Operator Certification training/testing program.**
   New Mexico has had active operator training programs and a state requirement for testing and certification for many years. The lack of trained, certified operators in many small systems continues to be a problem. Revisions to the training/testing programs and refinements to the certification tests are ongoing but early results are promising.

6. **Requirements for ongoing financial reporting from loan/grant recipients.**
   As more aging, small systems apply for funding to upgrade and expand, funding agencies require that appropriate financial record keeping be established and maintained to be eligible for funding. This also forces systems to revise outdated rate structures and resolve accounts receivable problems.

7. **More active county-wide planning, training, and education efforts.**
   Several counties have become leaders in organizing regional efforts among water systems to develop partnerships, share training and consider consolidation possibilities. Each regional effort is different and tailored to the local needs.

8. **The continued availability of grants for low income populations, such as for Enterprise Zones/ Colonias.**
   There are in New Mexico numerous, small, isolated publicly owned systems for whom consolidation with its economies of scale is not a possibility in the foreseeable future. Many of these communities are low income and unable to afford a straight loan.

9. **State Revolving Fund funding for construction projects.**
   The addition of the SDWA State Revolving Fund provides more options for systems and significantly increases the pool of money available to construct major projects.

10. **The availability of alternative sources of funding.**
    Although sometimes confusing, the benefit of having different federal and state funding programs available is that they can respond to the differing needs of small and large water systems. How these funding sources coordinate and standardize procedures becomes increasingly important.

11. **The Rural Utility Service (RUS) model of funding, with a combination of grants and loans, assists systems in developing capacity.**
    Having flexible, combined loan/grant programs available allows small systems to pursue upgrading their entire system when needed, rather than be limited to patching up only the immediate crisis with the amount of straight loan they could afford.

12. **"Capacity development" itself is bringing attention to issues small water systems must face.**
    As various aspects of the program are initiated and increasing attention is devoted to "capacity" issues at training conferences and in stakeholder publications, water system owners and operators develop awareness and innovative ways to address local problems.

Factors that Impair Capacity Development

Stakeholders and staff identified the following factors that **impair** capacity development in New Mexico:

1. **New complex federal regulations.**
   The new surface water regulations and requirements for disinfection by-product monitoring are complex and require a great deal of training of the regulatory and technical assistance staff in order to be able to translate the requirements to the systems. Four additional new federal regulations are expected to be promulgated by the US EPA in 2000. These rules strengthen the enforcement, microbiological and public notification provisions of current regulations. Their complexity will make compliance by small systems even more difficult and require the State to increase training and public outreach.

2. **New regulations may impose high costs.**
   The US EPA has proposed maximum contaminant levels for radon, arsenic and uranium and is proposing to publish a health advisory for levels of sulfate. Many systems in New Mexico exceed the levels being considered. Attachments III 1-4 summarize occurrences of these high concentrations by county in New Mexico and detail potential costs to the water systems.

3. **SRF process is new and not yet viable.**
   Initiating a new federal construction loan program is complex and time consuming. Establishing application and review procedures that are manageable by very small volunteer-run water systems takes experimentation. Assistance programs must be developed to insure that small systems too have reasonable access to the funding.

4. **Small water systems are often unable to acquire and keep a competent, certified operator.**
   For nearly fifty years many small water systems have been operated, maintained and managed by volunteers or at most part-time personnel. Many systems do not need full time employees. Rate structures and salaries also are not such as to attract or support trained, certified operators.

5. **Lack of trained decision-makers and an inadequate amount of training for decision-makers.** Most small systems have fewer employees so they need greater skills.
   Small water systems are run, by community leaders and leaders who are not trained in the management of a utility. Prior to recently, such training has not been available in New Mexico, with the notable exception of the NM Rural Water Association's annual technical training conference held in Albuquerque where attendance was not possible for very small systems.

6. **A history of "crisis response" by local and state decision-makers.**
   Small, simple ground water systems have been constructed throughout the state. Most supply safe drinking water for years with little o and m. As the systems age and problems develop, local, state and legislative officials often respond by funding solutions to immediate problems without performing longer term or comprehensive planning.

7. **Small water systems have limited financial resources for both planning and for construction, and they have difficulty obtaining sufficient engineering services.**
   Very small systems with fewer than about 50 connections can generate little excess revenue. As regulatory requirements multiply and costs rise, even larger systems' reserve accounts shrink. Most water systems are unaware of the Professional Technical Advisory Board, which will provide free advice in the Request for Proposal and selection of an engineer.

8. **The forms and paperwork required from different regulatory and funding agencies are a major impairment to system capacity.** Often agencies have different and conflicting policies and high turnover of staff.
   Water systems must routinely report on water quality, water rights and use, taxes, labor, corporate and financial status, each to different agencies. Application (and sometimes format) requirements for funding construction projects vary with the funding agency. Rather than finding the funding most appropriate to their needs, systems give up and pursue only one source. Turnover in agency staff makes the long process longer and more confusing.

9. **There is a lack of community awareness of water as regulated utility.**
   Drinking water supply is not thought of by most in the same way as electric utilities are. Such lack of community awareness makes running the water utility as a business more difficult.

10. **There is a lack of communication between water system management and customers, and between regulatory and funding agencies and water systems.**
    As long as it's not broke, says the customer, why go to the annual meeting of the water system? Communicating with customers effectively takes imagination and persistence. Funding agencies have the same problem communicating with those water systems which know they don=t need to apply for funding (this year).

11. **SDWA regulations and water treatment technology are not geared to the small system.**
    The smaller and simpler the system the less likely it is that a national standard or technology will be appropriate. National regulations are based on the assumption of a certain size and capability. Many systems in New Mexico are and will remain classified as, in EPA's term, "very, very small."

12. **Physical encroachment by other water entities make it difficult to manage the system and plan for the future.**
    Problems of physical encroachment seem to occur most in areas of the state that are developing the fastest. But they can occur elsewhere. Other than incorporated municipalities and villages, water systems geographic boundaries are not clear. Lengthy and expensive legal battles can result.

13. **The lack of meters and back-flow protection, and an inadequate rate structure, are often impairments in aging, very small systems.**
    In systems funded from 1950 through 1970, meters and back-flow protection were not required. Flat, monthly rates were common. Without meters progressive rate structures and increased revenues are not possible.

14. **The definition and legal status under state law of Mutual Domestic Water Consumer Associations is too vague**.
    Although MDWCAs are a subdivision of state government, they have limited authority. The issue of what constitutes an MDWCA and when has been the subject of a protracted legal challenge. Which state agency regulates which aspects of an MDWCA is also not clear to many involved in government.

15. **The lack of available water rights, as well as the time and cost of resolving water rights issues.**
    This is a nearly universal stakeholder complaint. Clarifying existing water rights, rectifying prior water rights and securing water rights for the future all pose serious problems for many water systems. Apparent inequities between systems are also a commonly identified issue.

Both the factors that enhance capacity and the factors that impair capacity were used to identify existing, effective programs that should be maintained or expanded and to develop the new capacity development programs detailed below. A large number of very small, aging, publicly owned systems in New Mexico have yet to receive basic capacity development assistance. Therefore, an immediate priority is to enhance existing programs that have proven successful in aiding this category of system.

C: Use of Authorities and Resources.

i) Assistance in Complying with National Drinking Water Regulations

> ***"In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate:***
>
> > ***(C) A description of how the State will use the authorities and resources of this title or other means to:***
> > ***i) Assist Public water systems in complying with national drinking water regulations."***

Major present programs:

- Continue NMED's statewide SDWA compliance sampling and analysis programs, thereby relieving the burden on small water systems and providing effective laboratory analyses and reporting of drinking water quality throughout the state. Staffing and laboratory costs are paid for by the Water Conservation Fund, a dedicated state source of revenue provided by fees assessed on all public water systems.

- Continue existing state and federal TA provider funding levels for technical assistance, emergency assistance, loan/grant application assistance and operator training. Several state and federal agencies currently provide some funding for these programs.

- Continue State Revolving Fund (SRF) priority ranking and capacity assessment systems, and SRF implementation by the NM Finance Authority and the NMED.

- Continue NMED engineering review and oversight, sanitary survey and CPE implementation, source water assessments, operator certification and compliance and enforcement, incorporating technical, managerial and financial assistance into these programs.

- Support continuation of the level of USDA Rural Utilities Service (RUS), NMED Rural Infrastructure Program (RIP) and DFA Community Development Block Grant (CDBG) funding for drinking water construction projects. In addition to the State Revolving Fund, these three programs have historically funded and continue to fund many needed drinking water projects.

- Continue interagency coordination, especially among the various funding agencies. An operating interagency infrastructure group provides the basis for capacity development program review and improvement.

New/expanded programs (1-10 years):

- Continue the state's capacity assessment/development assistance to potential SRF projects. Through contracted services, additional assistance will be provided systems lacking minor elements of capacity and having difficulty negotiating the complex federal application process.

- Continue, expand and improve TA provider program coordination and oversight. Stakeholders identify such assistance as particularly helpful in developing financial and managerial capacity. But the demand from systems exceeds the available resources.

- Implement Board /Council Member training and operator training for all systems. In regions around the state (e.g. based on Council of Government boundaries) sponsor interagency, coordinated, multiple tract technical training programs through once or twice per year sessions involving funding agencies, regulators and TA providers. Free technical, managerial and financial training shall be provided as needed that year. This program will combine elements of such existing efforts as the Infrastructure Conference, the NM Rural Water Association=s Technical Training Conference, and the funding agencies' One Stop Shop meetings.

- Fund TA providers to conduct focused, on-site training for groups of small systems' Board of Directors/Councils or staff.

- Initiate voluntary Board Member training certification program, utilizing the annual regional training conference or the on-site training to recognize and upgrade Board/Council utility management capabilities.

- Expand existing TA provider one-on-one managerial and financial assistance/training and loan application preparation similar to services provided through RUS funding or by pilot project contracts by the NMED.

- Provide funding for initial planning and preliminary engineering reports (capital improvement plans) for small systems with a population of less than 3,300. NMFA will partner with an existing Rural Community Assistance Corporation (RCAC) loan program to facilitate small system compliance with the national drinking water regulations. Bridge loans and/or grant funding will be provided early in the process so that timely, appropriate data is available to system decision makers and funding agencies. Required as part of the process will be TA provider assistance and training of Boards/Councils. Capacity development set-aside funds will be leveraged if possible to attract other grant funds. The Bridge Loan program with RCAC was not implemented; NMFA is interested in continuing these efforts in the future.

- Coordinate with the State Engineer Office to facilitate and standardize resolution of water rights issues for publicly owned water systems by category if possible.

- Standardize the various funding agencies' application, Preliminary Engineering Report (PER), and NEPA forms and requirements.

- Improve communication within NMED and between NMED and the NMFA and water systems, including sharing of data. Establish consistent rules between regional offices and NMED Santa Fe.

Potential Future Programs:

- Review the legal status under state law of water systems defined as "public water systems" in the SDWA to determine if changes are needed in New Mexico law:
    - regarding the minimum size or nature of "publicly owned" systems eligible for state funding,
    - to encourage partnerships/regionalization,
    - to prevent inappropriate encroachment between systems,
    - to determine how funding can be made available to "privately owned" systems, given the State Constitution's anti-donation clause.

- Review the creation of a state level advisory council of funding and regulatory agencies, technical assistance providers, and systems built on the existing interagency infrastructure group. Seek advisory council status for this group from the Governor and mandate routine coordination and communication between agencies having authority over drinking water management.

- Document the need for state grant subsidies for very small, disadvantaged systems or unserved areas, such as Colonias, if existing state and federal grant programs are inadequate.

ii) The Development of Partnerships

"In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate:

(C) A description of how the State will use the authorities and resources of this title or other means to:

(ii) "Encourage the development of partnerships between public water systems to enhance the technical, managerial, and financial capacity of the systems."

Major Present Programs:

- Continue and enhance coordination with regional utility planning efforts, whether through the counties, COGs or regional associations of water systems.

- Continue training of public water system owners and operators about the increasingly complex federal regulations and the benefits of partnerships.

New/expanded Programs (1-10 years):

- Make funding for initial capital improvement plans for small systems considering consolidation/partnerships more available earlier in the process so that appropriate technical, managerial, and financial capacity data is available to system decision makers and funding agencies.

- Upon request, or in consultation with water system request that appropriate technical, managerial and financial regionalization options are included in all Preliminary Engineering Reports submitted to all funding agencies for publicly owned systems.

- Establish a pilot program for several troubled, publicly owned systems that facilitates partnerships between the water system(s), technical assistance providers, and the funding agency by providing incentives linked to the construction funding program(s) and requires thorough pre-construction and post-construction capacity development by the water system(s) to receive the financial incentive. The incentive would be grant or negative interest loan funding for construction upon successful completion of a capacity development work plan.

Potential Future Programs:

- Expand the above incentive program based on the pilot program experience.

iii) Training and Certification of Operators

"In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate:

(C) A description of how the State will use the authorities and resources of this title or other means to:

(iii) "Assist public water systems in the training and certification of operators."

Major Present Programs:

- Continue existing TA provider contracts for operator training and on-site technical assistance and training.

New/expanded Programs (1-10 years):

- To insure that systems employ trained and certified operators, improve operator training and certification by increasing the availability and relevance of training opportunities and by refining existing examinations and application procedures. Particular attention needs to be paid to small systems that will be required by new regulations to upgrade treatment capacity.

- Add additional training opportunities to state operator training and certification program, especially on-site or regional training.

- Experiment with and then duplicate successful on-site or regional operator training and certification programs.

Potential Future Program:

- Revise and simplify state certification and training requirements for the smallest of public water systems, to include self-study and distance learning options.

D: Baseline and Measuring Improvements.

> ***"In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate:***
>
> > ***(D) A description of how the State will establish a baseline and measure improvements in capacity with respect to national primary drinking water regulations and State drinking water law."***

A deputy assistant administrator for compliance from EPA recently wrote: "No single fact, number, or category of measure can convey all the information necessary to measure performance comprehensively. The mission of regulatory compliance programs is complex. They have multiple responsibilities and they use a variety of tools to achieve them. A mix of performance measures is needed to ensure accountability, improve management and increase program effectiveness." (Michael M. Stahl in *The Public Manager*, Fall 1999)

The DWB will use a mix of performance measures to gauge the effectiveness of overall capacity development efforts in New Mexico. Both quantitative and qualitative measures will be used. Traditional measures of enforcement and deterrence such as the Significant Non-Compliance (SNC) list and Notices of Violation will be combined with measures of compliance assistance and compliance incentive initiatives which systems have taken advantage of each year. Compliance assistance and compliance incentive approaches are designed to enable and motivate water systems to initiate their own efforts to achieve and maintain capacity. And direct feedback from stakeholders will be routinely invited and included in capacity improvement reports. A baseline of data will be established for state FY 2000 and updated annually.

Because this strategy has a targeted problem solving orientation focused primarily on water systems with a population of less than 3,300, improvement measures will likewise focus on that category of system. Data will differentiate between systems larger than and smaller than 3,300 so that the strategy programs can be more carefully evaluated. Technical assistance providers funded through the capacity development set-asides will be required to report data by these population categories, such data as corrective action plans implemented and training certificates issued.

Quantitative measures will include:

- information on the SNC list,
- data on MCL violations
- TCR rule reporting violations,
- sanitary surveys and CPEs completed,
- the number of water system emergencies declared,
- and Consumer Confidence Report compliance rate and timeliness.

With respect to compliance assistance and incentives, data will include:

- the type and number of corrective action plans implemented,
- the number of training certificates issued to both Board/Council members and operators,
- records of attendance from technical, managerial and financial training sessions,
- the number of TA provider technical assistance projects provided,
- information on partnership grants awarded,
- and the number of construction loan/grant awards.

At the conclusion of technical training conferences and DWB sponsored public hearings and meetings stakeholders present will be invited to comment on the effectiveness of capacity development programs and needed initiatives. Summary information from such comments will be incorporated into all DWB capacity reports.

E: Stakeholder Involvement

> ***"In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate:***
>
> > ***(E) The identification of the persons that have an interest in and are involved in the development and implementation of the capacity development strategy (including all appropriate agencies of federal, State, and local governments, private and nonprofit public water systems, and public water system customers)."***

The New Mexico Environment Department (NMED) compiled an extensive list of contacts to invite to the State's stakeholder meetings on Capacity Development, with assistance from the University of New Mexico Environmental Finance Center (EFC). Letters of invitation were mailed to representatives of large, medium, and small public water systems, drinking water technical assistance providers, environmental advocacy groups, and various state and federal agencies. In addition, the NMED utilized the extensive mailings from both the NM Rural Water Association and the NM Municipal League to publish articles on stakeholder meetings and to promote stakeholder input.

The list of specific associations and agencies who were notified include:

NM Environmental Finance Center (EFC)
NM Drinking Water Bureau Advisory Group
New Mexico Municipal League
New Mexico Rural Water Association (RWA)
Rural Community Assistance Corporation (RCAC)
Dona Ana County Water and Wastewater Alliance
Consulting Engineering Council
League of Women' Voters
NM Department of Finance and Administration
NM Finance Authority
Water and Wastewater Training Program / New Mexico State University
Southwest Water Consultants, Inc.
New Mexico Association of Regional Councils
New Mexico Association of Counties
New Mexico Environment Department, Construction Programs, Operator Certification
New Mexico Public Regulatory Commission
New Mexico Water Resource Institute
U.S. Department of Agriculture - Rural Utilities Service
US Environmental Protection Agency - Region 6
US HUD, Community Planning and Development
Ragsdale and Associates
NM Public Interest Research Group (PIRG)
NM Citizens for Clean Air and Water

The NMED held five public meetings on developing the State′ Capacity Development strategy, in addition to ongoing discussions with the NMED's standing Drinking Water Advisory Group. The public meetings were in April, May and July of 2000. One was held at a conference center at the University of New Mexico and was moderated by the EFC. Two meetings were held in conjunction with the NM RWA annual, statewide Technical Training Conference in Albuquerque. There were approximately 60 attendees at each of these meetings. One stakeholder meeting was held near Las Cruces in conjunction with the Dona Ana County Alliance of Water and Wastewater Systems' monthly meeting in May. The last meeting in July was also in Albuquerque, a joint public meeting and Drinking Water Advisory Group meeting to which over 500 publicly owned water systems were invited.

Summaries of these stakeholder meetings are shown in Attachments E 1-4 of the state strategy document.

The EFC facilitated one stakeholder meeting on the NMED Capacity Development strategy. An overview of the Capacity Development program was given and then input sought on specific issues related to the State's strategy. Small group discussion occurred and various ideas were recorded on flip charts (see Attachment E 1). Priorities were identified by each working group.

Presentations were made by the Drinking Water Bureau Chief and bureau staff at the meetings of the RWA Technical Training conference (see Attachment E 2), followed by questions and discussions. At the conclusion of the meeting participants ranked their highest priority proposed program elements. A summary of the meeting in Dona Ana County is Attachment E-3.

NMED staff evaluated ideas expressed on the following topics:

- characterization of small system problems
- existing capacity development activities and "holes" in state programs
- capacity development strategy objectives and priorities
- prioritization of systems to improve technical, managerial, and financial capacity
- on-site assessments and assistance
- post-construction capacity needs
- consolidations and partnerships
- direct referrals
- assessment inspection screening process
- communication and data systems
- technical assistance efforts
- board/council training
- education and public outreach efforts

A NMED staff committee was working simultaneously on a Drinking Water Bureau strategic planning process that had identified "finalizing and implementing the capacity development strategy" as one of three top program priorities. This committee had the opportunity to review the stakeholder input and the draft strategy. Staff incorporated these ideas into the State's Capacity Development Strategy for Existing Systems.
The draft capacity development strategy was then reviewed in detail at a joint Drinking Water Advisory Committee/ public meeting in Albuquerque on July 26, 2000. This standing advisory committee consists of representatives from public water systems, TA providers, environmental advocacy groups, and state and federal agencies (Attachment E 4). Over 450 community water systems eligible for the State Revolving Loan Fund were sent letters of invitation to the July 26 meeting. Because SRF funding, this year's Intended Use Plan and the new Groundwater Rule were also on the agenda of this meeting, a wide range of capacity related issues were discussed. The comments and suggestions at this meeting (Attachment E-5) were incorporated into the final state strategy document prior to adoption and submission to the US Environmental Protection Agency.

The Drinking Water Advisory Group will continue to be a primary focus of stakeholder involvement in New Mexico. This group has been active for several years and has contributed greatly to the development of all programs required by the SDWA. The Advisory Group will review program accomplishments and the required Report to the Governor. NMED Capacity Development staff will play a more active role in the NM Intergovernmental Infrastructure Group, which consists of all state and federal funding agencies. Funding agencies will identify deficiencies in the capacity development program from their day to day work with public water systems. Both groups will review and comment on the specific capacity development programs detailed in the State Strategy as they are implemented.

To reach more and smaller public water systems directly with both information and training, the annual technical training conferences will be held in local regions. Feedback on program effectiveness will be solicited at the conclusion of each conference. Troubled systems will be targeted for participation in the nearest conference. It is anticipated that at least four training tracts will be offered each year covering:

1) current regulatory issues,
2) financial and management training,
3) operator and technical training, and
4) funding assistance.

IV. Implementation: Initiatives for Workplan Considerations

Section 1.
Summary of Early Program Accomplishments

The NMED is using the authorities and resources of the SDWA to implement its Capacity Development program as follows:

1. Assist public water supply systems (PWSS) in complying with national primary drinking water regulations. NMED held several stakeholder meetings and identified several programs to assist PWSs with compliance activities. These included Statewide compliance sampling and analysis programs, interagency coordination, DWSRF funding programs for Technical Assistance providers, and small system technical assistance;

2. Encourage the development of partnerships between public water supplies to enhance the technical, managerial, and financial capacity of the systems. NMED currently includes material on consolidation as part of its training program curricula. NMED also coordinates with regional planning associations to encourage partnerships, consolidation, and regionalization activities.

3. Assist public water supply systems in the training and certification of operators. NMED contracts with industry associations and agencies for operator training and on-site technical assistance. NMED plans to improve the existing operator certification program by increasing the frequency of training sessions and the number of on-site or regional training opportunities, and by focusing on the needs of small systems.

Section 2.
Partnerships: Contracts with Third Parties

The NMED is utilizing the DWSRF Set-Aside monies to contract with technical assistance providers. A summary of these activities include:

New Mexico Rural Assistance Corporation: In January 2002, the NMED entered into a professional services agreement with New Mexico Rural Assistance Corporation for the purposes of providing managerial and financial assistance and training to water system board members and operators. Priority is given to water systems with the highest need that lack managerial and financial capacity. Managerial and financial assistance includes, but is not limited to, evaluation of management and financial practices, identifying existing problems, and consultation with water system representatives to develop strategies or procedures to prevent or eliminate violations of the New Mexico Drinking Water Regulations.

New Mexico Rural Water Association: The NMED has entered into a contract with the New Mexico Rural Water Association (NMRWA) to provide on-site technical assistance to water systems. Localized training will also be held throughout the State related to operator certification training. The NMRWA also provides Board Member training throughout the state from funds from EPA Headquarters.

New Mexico Environmental Finance Authority: In June 2000, the NMED entered into a professional services agreement the Environmental Finance Center (EFC) at New Mexico Tech University for the purpose of providing assistance to small water systems at they move through the DWSRF loan process. EFC assistance includes explanation of DWSRF program to water systems, loan process and Safe Drinking Water Act requirements; identification of project scope and timeliness for securing funding; and coordination of preliminary engineering reports and environmental information documents.

Future contracts will provide localized training to water system operators. The priority will be to target water systems showing deficiencies on the capacity assessment form and to systems on the Significant Non-Compliance list. The contractor(s) will initiate a "Voluntary Board Member Recognition Program" utilizing the regional training conference, on-site training, and other training to recognize Board/Council utility management capabilities.

State Contract for Mediation Services: A State has a contract with a third party to resolve complex issues through the mediation process. A facilitator will be used to lead discussions to identify the root causes of noncompliance for those systems in significant noncompliance (SNC). The topics of technical, managerial, and financial factors are presented with an emphasis upon the underlying causes of non-compliance.

Attendees at the meeting will include water utility staff and management, local officials such as the mayor and/or home owners association members, the Board of Directors, the New Mexico Environment Department (NMED), the New Mexico Finance Authority (NMFA), and relevant technical assistance providers. The facilitator will help parties make decisions related to returning the system back to compliance.

Section 3.

Eligible Projects Under the Consolidated Workplan

Note: Not all activities listed below will be funded under the Capacity Development Workplan. Funding sources will be negotiated between NMED, NMFA & EPA. In addition, of the listed activities below not all will be included in final workplans.

NMED has developed a new system and existing system capacity development strategy. The new system strategy ensures that prior to coming on line that the system has the technical, managerial, of financial capacity to properly operate the water system. The existing system strategy assists water systems in acquiring and maintaining capacity to ensure compliance with the National Primary Drinking Water regulations. The State's Existing System strategy was approved by EPA Region 6 on September 26, 2000.

Examples of Capacity Development activities under the DWRLF Workplan Objectives include the following:

Objective
Coordinate, review, oversee program implementation:

Outputs

- Develop procurements related to capacity development activities. Track and monitor contracts, invoices, and work status reports on system receiving assistance

- Update, maintain, and revise the DWRLF Priority List for all eligible community and non-transient non-community water systems.

- Review and track Capacity Assessments and assign "A", "B", "C", or "D" ranking.

- Serve as liaison with NMFA, EPA, and Construction Programs Bureau regarding priority list, DWRLF applications, and other capacity issues.

- Prepare mandatory and other capacity development reports, such as: Significant Non-Compliance Report, Governor's Report, annual program implementation report for award of DWSRF monies, etc. to EPA.

- Serve as team leader and coordinator of Capacity Development Team.

- Evaluate and identify systems initiated after 10/99 for technical, managerial, and financial capacity.

- Refer "C" and "D" systems to area office for voluntary compliance and/or enforcement action.

- Conduct stakeholder meetings and evaluate the effectiveness of the Capacity Development program.

- Attend capacity development workshops and conferences, New Mexico Rural Water Association Technical Training Conference, Infrastructure Conference, Agencies One Stop Shop meetings, Drinking Water Advisory Group meetings, etc.

- Review viability of new water systems related to New System Capacity Development program requirements and report findings to the New Mexico Finance Authority

- Participate in interagency coordination, Intergovernmental Infrastructure Group Subcommittee on Technical Requirements.

- Participate in Compliance Assistance Team activities.

Objective

Increase number of community water systems having adequate capacity to maintain & operate facility

Outputs

- Provide on-site assistance to water systems with "emergency" need.
- Provide on-site technical, managerial, and financial assistance for "C" and "D" ranked water systems with public health and compliance issues.
- Provide operator certification assistance.
- Provide mediation to communities with inadequate capacity.
- Educate public on Capacity Development program through brochures, Drinking Water Advisory Group (DWAG), and other public outreach events.
- Evaluate progress of water systems and develop baseline to measure improvement.
- Review sanitary survey information to direct Technical Assistance provider efforts.
- Assist in the review of Preliminary Engineer Report (PER) and NEPA forms and requirements.
- Address recalcitrant systems and long-term compliance schedules.
- Assist in enforcement actions related to recalcitrant systems.
- Review capital improvement plans for small systems that are considering consolidation / regionalization.
- Enhance regional utility planning efforts through counties, COGs, or regional associations.
- Participate in Comprehensive Performance Evaluation (CPE) studies.
- Provide information on water right issues.
- Provide on-site assistance to systems to address source water adequacy (adequate source water quality, adequate source water quantity, source water protection plan)
- Provide on-site assistance to systems in addressing infrastructure adequacy (review condition of well or source water intakes, condition of treatment, storage, and distribution, current and prospective adequacy of infrastructure, emergency preparedness, infrastructure improvement program, capital improvement planning).

- Provide on-site assistance to systems in implementation of technical knowledge (ensure certified operator, enhance operation and maintenance expertise, evaluate understanding of technical aspects of regulatory requirements and understanding of system's technical and operational characteristics)

- Provide on-site assistance to systems in ownership accountability (ensure clear ownership identity, evaluate management information systems).

- Provide on-site assistance to systems in addressing staffing and organization issues (ensure clear identification of operator/manager, training and continued education sufficient staff with appropriate expertise and experience, staff with appropriate licenses and certification procedures and policies for system management and operation, understanding of management aspects of regulatory requirements and system operations, encourage Board member training).

- Provide on-site assistance to systems in forming effective linkages (increase awareness of available external resources, communication with other systems, communication with customers, and communication with regulators).

- Provide on-site assistance to systems in addressing short-term / long-term compliance issues.

- Provide on-site assistance to systems to evaluate meter program and rate structures.

- Provide on-site assistance to systems in addressing issues related to revenue sufficiency (ensure revenues cover expenses, appropriate rates and charges, review billing and collection practices, evaluate revenues for depreciation and reserves, and review cost-of-service studies).

- Provide on-site assistance to systems in evaluating credit worthiness (evaluate positive credit rating, access to financial capital through public and private sources, assist in encouragement of healthy financial ratios, review bonds and assurances, evaluate appropriate debt/equity ratio).

- Provide on-site assistance to systems related to fiscal management and controls: (ensure adequate books and records, system conducts annual budgeting and reporting, system has appropriate accounting practice, valuation of utility assets, conduct facilities planning, review appropriate management of revenues, and review financial investment strategy)

Objective

Assess the present and future capability and viability of public water systems' to operate in compliance with SDWA and qualify for DWRLF assistance:

Outputs

- Score and rank all eligible community and non-community water systems for the priority list.
- Conduct and complete Capacity Assessments for systems on priority list.
- Identify water systems in need of capacity development and facilitate their assistance through DWRLF and/or the Set-Asides.
- Coordinate with funding agencies, USDA RUS, CDBG, Emergency Grants Program, etc.
- Address policy related to water affordability.
- Address the issue of a funding mechanism to fund "privately owned" systems, given the State's Constitution anti-donation clause.

Objective

Assist loan applicants to obtain eligibility through contracts with the EFC-NMT and Rural Community Assistance Corporation (RCAC).

Output

- Oversee third party operations to ensure activities meet workplan goals and objectives.

Objective

Develop and support a Bridge Loan Program for PERs and EIDs.

Outputs

- Assist systems in efforts related to "Bridge Loans".
- Coordinate between funding agencies and NMED.